MULTIPLE LINEAR REGRESSION ANALYSIS OF ACADEMIC ACHIEVEMENTS FOR HIGHER PRIMARY SCHOOL

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ABSTRACT

The report is about the Marketing Perception and Consumer Behavior of the customers of Chennai and all across India towards High End Cars (Benz, BMW and Audi etc.). The purpose of this projectis to enable the reader, to gather important information quickly about the WHY, WHAT, WHEN, WHO and HOW should a consumer purchase a High End Car and also study about the perception of the consumers in different levels of our society. Today's generation want to purchase cars which will showcase their class or standard of living and this does not means that the consumers who are rich or upper middle class can only dream of purchasing a High End car everyone wants and has the right to dream. The dream can be fulfilled now in this modern age where consumers have the chance of getting a car loan which will in turn help them purchase a high end car and lead a life of a king. It is all because of the modernizing concepts and themes.

KEYWORDS: High-end cars, Luxury automobiles, Market Perception, Consumer Behavior.

Introduction:

Education is important not only for the full development of one's personality, but also for the sustained growth of the nation. Elementary education in India, therefore, is the foundation on which the development of every citizen and the nation as a whole hinges. But making primary education available for all in India has also been one of the major challenges for the government. Moreover, the quality of elementary education in India accessible, universal and relevant has been a goal since the eighth five-year plan.

The Constitution Act 2002, enacted in December 2002 seeks to make education free and compulsory and a Fundamental Right for all children in the age-group 6-14 years. A new Article, 21A in part 3rd ["Fundamental Right"] of the Constitution has been introduced to accentuate this. It reads: The State shall provide free and compulsory education to all children of the state may, by law, determine."

The world is becoming more and more competitive. Quality of performance has become the key factor for personal progress. Parents desire that their children climb the ladder of performance to as high a level as possible. This desire for a high level of achievement puts a lot of pressure on students, teachers, schools and in general the education system itself. In fact, it appears as if the whole system of education revolves round the academic achievement of students, though various other outcomes are also expected from the system. Thus a lot of time and effort of the schools are used for helping students to achieve better in their scholastic endeavors. The importance of scholastic and academic achievement has raised important questions for educational researchers. What factors promote achievement in students? How far do the different factors contribute towards academic achievement? (Ramaswamy, 1990).

- **Objectives:** To assess the relationships between job satisfaction of teachers, teaching effectiveness of teachers, organization culture of schools, study habits of students, SES of students, leadership behavior of teachers, work motivation of teachers and IQ of students with academic achievement of higher primary school students.

- To assess the influence or impact and relative contributions of job satisfaction of teachers, teaching effectiveness of teachers, organization culture of schools, study habits of students, SES of students, leadership behavior of teachers, work motivation of teachers and IQ of students on academic achievement of higher primary school students.

Scope and importance of study: The world is becoming more and more competitive. Quality of performance has become the key factor for personal progress. Parents desire that their children climb the ladder of performance to as high a level as possible. This desire for a high level of achievement puts a lot of pressure on students, teachers, schools and in general the education system itself. In fact, it appears as if the whole system of education revolves round the academic achievement of students, though various other outcomes are also expected from the system. Thus a lot of time and effort of the schools are used for helping students to achieve better in their scholastic endeavors. The importance of scholastic and academic achievement has raised important questions for educational researchers. What factors promote achievement in students? How far do the different factors contribute towards academic achievement? (Ramaswamy, 1990)

- **Hypotesis:** There is no significant relationship between job satisfaction of teachers, teaching effectiveness of teachers, organization culture of schools, study habits of students, SES of students, leadership behavior of teachers, work motivation of teachers and IQ of students on academic achievement of government, aided, unaided, rural, urban higher primary school students.

- **Method and Materials:**

A study was conducted in Dharwad district to assess the achedamic achievement of higher primary school students during 2014-15. Systematic stratified random samples of 1500 women were selected, In which, 750 were from rural and 750 were from urban area. The mean age was 33.567.60. The data was collected on different characteristics by using well designed tool with personal interview method. The data were analyzed by using chi-square test to find out the significant determinants of fertility of women in Kalburgi district. A statistical significance was set at 5% level of significance (p<0.05).

- **Sampling**

In this study, there are two populations defined. Population-1 is teachers of higher primary schools and Population-2 is 6th to 8th standard higher primary schools. The sampling procedure was carried out through the following steps. Random selections of schools were carried out by District higher primary school statistics with the information provided by the District statistics. A stratified sampling method was used in selecting the subjects of the study. Below, the brief explanations of sampling procedures were presented.

- **Sampling of Schools**

The first step of sampling is school sample selection. In this step, a representative sample of schools in Dharwad district was selected. Selection of schools is based on a systematic probability-proportional-to-size technique, which includes the consideration of some strata such as, geographical region, and government/aided/ unaided.

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- **Sampling of Students and Teachers**

After school sampling, the second sampling step is student and teachers sampling. Generally, in each school, three teachers were sampled from each target school and 10 students were selected from selected schools.

• Instruments

The study achievement test form, a student questionnaire, and teacher questionnaires were used. These instruments were prepared in Kannada and English languages.

Materials and Methods:

Table: Multiple linear regression analysis of academic achievements of students by teaching effectiveness, job satisfaction, work motivation, organizational culture, leadership behaviour of teachers, study habit and socio-economic status of students

Independent variables	Regression coefficient	SE of regression coefficient	t-value	p-value	p-value
Intercept	-237.2042	20.1041	-11.798	0.00001	S
Teaching effectiveness (X1)	0.0031	0.0495	0.0617	0.9509	NS
Job satisfaction (X2)	0.0242	0.0707	0.3426	0.7327	NS
Work motivation (X3)	0.1568	0.1164	1.3470	0.1813	NS
Organizational culture (X4)	0.3536	0.0727	4.8636	0.00001	S
Leadership behaviour (X5)	0.0638	0.0567	1.1258	0.2632	NS
Study habit (X6)	1.2659	0.1720	7.3594	0.00001	S
Socio-economic status (X7)	0.2522	0.0825	3.0559	0.0029	S
R=0.9061, R²=0.8211, Adjusted R²=0.8074, F(7,92)=60.323 p<0.05, S, Std.Error of estimate: 7.4140					

From the results of the above table, it can be seen that

1. The combined effect of teachers teaching effectiveness (X1), Job satisfaction (X2), Leadership behaviour (X5) and Work motivation (X3) on academic achievements of students is found to be positive and not significant at 5% level of significance. It means that, the teachers teaching effectiveness (X1), Job satisfaction (X2), Leadership behaviour (X5) and Work motivation (X3) scores are positively influenced on academic achievements of students.

2. The combined effect of Organizational culture (X4), Study habit (X6) and Socio-economic status (X7) on academic achievements of students is found to be positive and significant at 5% level of significance. It means that, the Organizational culture (X4), Study habit (X6) and Socio-economic status (X7) scores are positively influenced on academic achievements of students.

Therefore, the multiple linear regression equation predicting the academic achievements of students (Y) in terms of Teaching effectiveness (X1), Job satisfaction (X2), Work motivation (X3), Organizational culture (X4), Leadership behaviour (X5), Study habit (X6) and Socio-economic status (X7) was found to be under:

Academic achievements of students $(Y) = -237.2042 + 0.0031X1 + 0.0242X2 + 0.1568X3 + 0.3536X4 + 0.0638X5 + 1.2659X6 + 0.2522X7$

The multiple R of the linear regression equation is 0.9061. For testing multiple correlation coefficients, the F-ratio (60.323) was found to be significant at 5% level. Thus, the null hypothesis is rejected and alternative hypothesis is accepted. Significant R suggests that estimation of academic achievements of students is possible on the basis of the predictor's i.e. Teaching effectiveness (X1), Job satisfaction (X2), Work motivation (X3), Organizational culture (X4), Leadership behaviour (X5), Study habit (X6) and Socio-economic status (X7). Further, the regression equation shows that Teaching effectiveness (X1), Job satisfaction (X2), Work motivation (X3), Organizational culture (X4), Leadership behaviour (X5), Study habit (X6) and Socio-economic status (X7) can be used to prediction of academic achievements of students.

The coefficient of multiple determination of R^2 is 0.8211. It can be therefore, be said that nearly 82.11 percent of the variation in academic achievements of students for whatever is measured by Teaching effectiveness (X1), Job satisfaction (X2), Work motivation (X3), Organizational culture (X4), Leadership behaviour (X5), Study habit (X6) and Socio-economic status (X7) taken together. The SEest for the regression equation is 7.4140. This means that each time the regression equation for the sample is used to predict a academic achievements of students, the chances are predicted academic achievements of students will not miss the actual academic achievements of students by more that ±7.4140.

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